

Lastly, the preferred method of fabrication would be injection molding for high volume low cost production. The material used could be any of a variety of materials such as polyethylene, polypropylene, polyester, nylon, etc. that are compatible with the injection molding process.

While there is shown and described herein certain specific structure embodying the invention, it will be manifest to those skilled in the art that various modifications and rearrangements of the parts may be made without departing from the spirit and scope of the underlying inventive concept. The subject invention is not limited to the particular forms herein shown and described except insofar as indicated by the scope of the appended claims.

I claim:

1. A mechanical toy wherein said toy comprises an automated non-cavitation bubble producing device connected to a non-bubble liquid emitting device, said bubble producing device and said liquid emitting device are adapted to be selectively operated either together or independently of each other.
2. The toy of claim 1 wherein said liquid is water.
3. The toy of claim 1 wherein said toy is connected to a pressurized water container.
4. The toy of claim 1 wherein said liquid emitting device defines a hydraulic motor having at least one liquid emission port.
5. The toy of claim 4 wherein said automated bubble producing device is actuatingly connected to said hydraulic motor such that a predetermined movement of said hydraulic motor imparts a corresponding predetermined movement to said bubble producing device.
6. The toy of claim 1 wherein said toy further comprises a container defining an inner cavity, said container having an opening in a wall of said container to provide communication between said inner cavity and the exterior of said container, an access device for accessing the liquid contents of said container through said opening, and a hydraulic motor operable in response to liquid flow from a source external to said apparatus, said hydraulic motor imparting movement to said access device for manipulating said access device into and out of contact with the liquid contents of said inner cavity.
7. The toy of claim 1 wherein said toy further comprises a first container defining a first inner cavity, said first container having a funnel integrally formed with and extending into said first inner cavity to provide communication between said first inner cavity and the exterior of said first container to inhibit spillage of the contents of said first container, and an access device for accessing the liquid contents of said first container through said funnel, said apparatus further comprising a second container having a second inner cavity, and a hollow cylinder rotatably mounted within said second inner cavity, said second container having at least one exit port to provide for communication between said second inner cavity and the exterior of said second container, and said hollow cylinder having at least one hole to provide communication between the interior of said hollow cylinder and the interior of said second inner cavity, said apparatus further comprising a hydraulic motor operable in response to liquid flow from a source external to said apparatus, said hydraulic motor imparting movement to said access device for manipulating said access device into and out of contact with the liquid contents of said first inner cavity and said hydraulic motor imparting rotation to said hollow cylinder within said second inner cavity and wherein rotation of said hollow cylinder causes periodic alignment of said at least one hole in said hollow cylinder

with said at least one exit port in said second container, and wherein said hydraulic motor comprises an impeller and an impeller housing, said impeller housing having a first opening for receiving said liquid from a source external to said apparatus and a second opening spatially removed from said first opening for permitting said liquid from said external source to exit said impeller housing and wherein said liquid flows into said first opening, past said impeller and exits out said second opening and whereby said liquid flow imparts rotation to said impeller and wherein the rotation of said impeller imparts movement of at least one of said hollow cylinder and said access device, and wherein said impeller is attached to a rotating assembly, said rotating assembly comprising an axle being integrally attached to said impeller at a first end of said axle within said impeller housing, said axle terminating in a second end on the exterior of said impeller housing and wherein said second end of said axle is rotatably and integrally attached to said hollow cylinder for rotation of said hollow cylinder within said second inner cavity, and wherein said second opening in said impeller housing is connected to said second container and provides communication between said impeller housing and said second inner cavity and said hollow cylinder, and wherein said liquid from said external source exits through said second opening in said impeller housing and flows into said hollow cylinder, and whereby rotation of said hollow cylinder permits said liquid to exit through the at least one aligned hole and exit port of said hollow cylinder and said second container in a time interval corresponding to the time in which such alignment is maintained.

8. A non-cavitation bubble creation apparatus comprising a hydraulic motor and a bubble creation device wherein said hydraulic motor is adapted to actuate said bubble creation device, said apparatus further including at least one exit port for the emission of hydraulic fluid.

9. The apparatus of claim 8 wherein the hydraulic fluid for said hydraulic motor is water.

10. The apparatus of claim 8 wherein said apparatus is connected to a pressurized water container.

11. The apparatus of claim 8 wherein said apparatus defines a mechanical toy.

12. The bubble creation device of claim 8 wherein said bubble creation device further comprises a container defining an inner cavity, said container having an opening in a wall of said container to provide communication between said inner cavity and the exterior of said container, and an access device for accessing the liquid contents of said container through said opening, and the hydraulic motor of claim 8, wherein said hydraulic motor is further operable in response to liquid flow from a source external to said apparatus, and wherein said hydraulic motor imparts movement to said access device for manipulating said access device into and out of contact with the liquid contents of said inner cavity.

13. The apparatus of claim 8 wherein said apparatus further comprises a first container defining a first inner cavity, said first container having a funnel integrally formed with and extending into said first inner cavity to provide communication between said first inner cavity and the exterior of said first container to inhibit spillage of the contents of said first container, and an access device for accessing the liquid contents of said first container through said funnel, said apparatus further comprising a second container having a second inner cavity, and a hollow cylinder rotatably mounted within said second inner cavity, said second container having at least one exit port to provide for communication between said second inner cavity and the

exterior of said second container, and said hollow cylinder having at least one hole to provide communication between the interior of said hollow cylinder and the interior of said second inner cavity, and the hydraulic motor of claim 8 further being operable in response to liquid flow from a source external to said apparatus, and wherein said hydraulic motor imparts movement to said access device for manipulating said access device into and out of contact with the liquid contents of said first inner cavity and said hydraulic motor imparts rotation to said hollow cylinder within said second inner cavity and wherein rotation of said hollow cylinder causes periodic alignment of said at least one hole in said hollow cylinder with said at least one exit port in said second container, and wherein said hydraulic motor comprises an impeller and an impeller housing, said impeller housing having a first opening for receiving said liquid from a source external to said apparatus and a second opening spatially removed from said first opening for permitting said liquid from said external source to exit said impeller housing and wherein said liquid flows into said first opening, past said impeller and exits out said second opening and whereby said liquid flow imparts rotation to said impeller and wherein the rotation of said impeller imparts movement of at least one of said hollow cylinder and said access device, and wherein said impeller is attached to a rotating assembly, said rotating assembly comprising an axle being integrally attached to said impeller at a first end of said axle within said impeller housing, said axle terminating in a second end on the exterior of said impeller housing and wherein said second end of said axle is rotatably and integrally attached to said hollow cylinder for rotation of said hollow cylinder within said second inner cavity, and wherein said second opening in said impeller housing is connected to said second container and provides communication between said impeller housing and said second inner cavity and said hollow cylinder, and wherein said liquid from said external source exits through said second opening in said impeller housing and flows into said hollow cylinder, and whereby rotation of said hollow cylinder permits said liquid to exit through the at least one aligned hole and exit port of said hollow cylinder and said second container in a time interval corresponding to the time in which such alignment is maintained.

Sub 14. An automatic non-cavitation bubble creation apparatus comprising a bubble producing device connected to a pressurized water container.

15. The apparatus of claim 14 wherein said bubble producing device and said pressurized water container are connected to a hydraulic motor.

16. The apparatus of claim 15 wherein the hydraulic fluid for said hydraulic motor is water.

17. The apparatus of claim 14 wherein said apparatus defines a mechanical toy.

18. The apparatus of claim 14 wherein said apparatus further comprises a container defining an inner cavity, said container having an opening in a wall of said container to provide communication between said inner cavity and the exterior of said container, an access device for accessing the liquid contents of said container through said opening, and a hydraulic motor operable in response to liquid flow from a source external to said apparatus, said hydraulic motor imparting movement to said access device for manipulating said access device into and out of contact with the liquid contents of said inner cavity.

19. The apparatus of claim 14 wherein said apparatus further comprises a first container defining a first inner

cavity, said first container having a funnel integrally formed with and extending into said first inner cavity to provide communication between said first inner cavity and the exterior of said first container, and an access device for accessing the liquid contents of said first container through said funnel, said apparatus further comprising a second container having a second inner cavity, and a hollow cylinder rotatably mounted within said second inner cavity, said second container having at least one exit port to provide for communication between said second inner cavity and the exterior of said second container, and said hollow cylinder having at least one hole to provide communication between the interior of said hollow cylinder and the interior of said second inner cavity, said apparatus further comprising a hydraulic motor operable in response to liquid flow from a source external to said apparatus, said hydraulic motor imparting movement to said access device for manipulating said access device into and out of contact with the liquid contents of said first inner cavity and said hydraulic motor imparting rotation to said hollow cylinder within said second inner cavity and wherein rotation of said hollow cylinder causes periodic alignment of said at least one hole in said hollow cylinder with said at least one exit port in said second container, and wherein said hydraulic motor comprises an impeller and an impeller housing, said impeller housing having a first opening for receiving said liquid from a source external to said apparatus and a second opening spatially removed from said first opening for permitting said liquid from said external source to exit said impeller housing and wherein said liquid flows into said first opening, past said impeller and exits out said second opening and whereby said liquid flow imparts rotation to said impeller and wherein the rotation of said impeller imparts movement of at least one of said hollow cylinder and said access device, and wherein said impeller is attached to a rotating assembly, said rotating assembly comprising an axle being integrally attached to said impeller at a first end of said axle within said impeller housing, said axle terminating in a second end on the exterior of said impeller housing and wherein said second end of said axle is rotatably and integrally attached to said hollow cylinder for rotation of said hollow cylinder within said second inner cavity, and wherein said second opening in said impeller housing is connected to said second container and provides communication between said impeller housing and said second inner cavity and said hollow cylinder, and wherein said liquid from said external source exits through said second opening in said impeller housing and flows into said hollow cylinder, and whereby rotation of said hollow cylinder permits said liquid to exit through the at least one aligned hole and exit port of said hollow cylinder and said second container in a time interval corresponding to the time in which such alignment is maintained.

Sub 20. A mechanical toy defining an automated non-cavitation bubble creation apparatus comprising a hydraulic motor and a non-cavitation bubble creation device wherein said hydraulic motor is adapted to actuate said non-cavitation bubble creation device, said apparatus further including at least one exit port for the emission of hydraulic fluid, and said apparatus being connected to a pressurized water container.

Add 45
Add 61

* * * *